

2016

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Recommended Citation

Richard F. Dole Jr., *The Contours of American Trade Secret Law: What Is and What Isn't Protectable as a Trade Secret*, 19 SMU SCI. & TECH. L. REV. 89 (2016)
<https://scholar.smu.edu/scitech/vol19/iss2/2>

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The Contours of American Trade Secret Law: What Is and What Isn't Protectable as a Trade Secret

*Richard F. Dole, Jr.**

I. INTRODUCTION

New developments are refining the contours of what is protectable as a trade secret. Both the Restatement of Unfair Competition and the Restatement of Employment Law have concise formulations.¹ Alternative formulations appear in the 1992 North American Free Trade Agreement (NAFTA),² Annex 1C of the 1994 General Agreement on Tariffs and Trade—which deals with Trade-Related Aspects of Intellectual Property Law (TRIPs Agreement)³—and the proposed European Union Trade Secrets Directive.⁴ Finally, the 1996 Economic Espionage Act (EEA),⁵ a federal criminal statute, uses over eighty words to define what is protectable as a trade secret.⁶

This article compares and reconciles these definitions with the Uniform Trade Secrets Act (the Uniform Act),⁷ which was adopted in 1979 and offi-

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1. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (AM. LAW INST. 1995) [hereinafter RESTATEMENT OF UNFAIR COMPETITION]; RESTATEMENT OF EMP. LAW § 8.02 (AM. LAW INST. 2015) [hereinafter RESTATEMENT OF EMP. LAW]. The importance of this new Restatement for trade secret litigation is indicated by a statistical analysis of 394 cases in which a federal district court issued a written opinion dealing with trade secrets between 1950 and 2008. In over eighty-five percent of the cases the alleged misappropriator was either an employee or a business partner of the plaintiff. David S. Almeling et al., *A Statistical Analysis of Trade Secret Litigation in the Federal Courts*, 45 GONZ. L. REV. 291, 293, 303 (2010).
2. North American Free Trade Agreement, U.S.-Can.-Mex. art. 1711(1), Dec. 17, 1992, 32 I.L.M. 289 [hereinafter NAFTA Agreement, art. 1711(1)].
3. Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 39, April 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299, 33 I.L.M. 1197 [hereinafter TRIPs Agreement, art. 39].
4. *Commission Proposal for a Directive of the European Parliament and of the Council on the Protection of Undisclosed Know-How and Business Information (Trade Secrets) Against Their Unlawful Acquisition, Use and Disclosure*, at 1, COM (2013) 813 final (Apr. 2, 2013) [hereinafter *Proposed EU Directive*].
5. 18 U.S.C. §§ 1831–1839 (2012).
6. *Id.* § 1839(3).
7. UNIF. TRADE SECRETS ACT §§ 1–12 (amended 1985), 14 U.L.A. 529–659 (2005) [hereinafter UNIFORM ACT]. Judicial decisions under state enactments of the Uniform Act will be identified in the footnotes.

cially amended in 1985⁸ by the Uniform Law Commission (ULC).⁹ The ULC reports the Uniform Act as having been enacted in forty-seven states.¹⁰

II. BACKGROUND

The 1939 Restatement (First) of Torts discussed the definition of trade secret in commentary rather than in black-letter text.¹¹ Comment b. to § 757 described a trade secret as follows:

A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business . . . in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or

8. *Id.* Four 1985 Amendments were adopted in response to issues raised by the American Bar Association Section of Patent, Trademark and Copyright Law. *See Action on Resolutions at the Annual Meeting in New Orleans, Louisiana—August 1981*, 1981 A.B.A. SEC. PAT., TRADEMARK, & COPYRIGHT L. PROC. 30–31. The A.B.A. Section recommended amending § 2(b) to limit injunctions allowing future use upon payment of a reasonable royalty to exceptional circumstances, amending § 3 to allow reasonable royalty damages if neither a plaintiff's actual loss nor a defendant's unjust enrichment were provable, amending § 7 to make clear that state remedies for breach of contract were not preempted by the Uniform Act, and amending § 11 to clarify that the Uniform Act did not apply to a continuing misappropriation that began prior to its effective date. *Id.* (Resolutions 206-3 to 206-6). The definition of trade secret was not amended in 1985. *Id.*
9. The ULC was organized in 1892 to promote desirable and practicable uniformity in state law. Commissioners are appointed by each state, the District of Columbia, and Puerto Rico. *See* UNIFORM ACT, *supra* note 7, at III–IV (preface).
10. *Legislative Fact Sheet - Trade Secrets Act*, UNIF. LAW COMM., <http://www.uniformlaws.org/LegislativeFactSheet.aspx?title=trade%20Secrets%20Act> (last visited Aug. 29, 2016). The Act has yet to be adopted in Massachusetts, New York, and North Carolina but has been enacted by the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. *Id.* Widespread enactment of the Uniform Act has been described as a factor in the increasing importance of trade secret law. David S. Almeling, *Seven Reasons Why Trade Secrets Are Increasingly Important*, 27 BERKELEY TECH. L.J. 1091, 1106 (2012) (“[W]idespread adoption of the UTSA has increased awareness of trade secret law—among lawyers, companies, judges, and others—and has provided greater consistency in the application of trade secret law and in the laws themselves.”).
11. RESTATEMENT (FIRST) OF TORTS § 757, cmt. b (AM. LAW INST. 1939).

other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operation of the business The subject matter of a trade secret must be secret.¹²

Comment b. identified six factors relevant to whether information was a trade secret:

Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.¹³

The plaintiff did not have to satisfy all six factors in order to establish existence of a trade secret.¹⁴

12. *Id.*

13. *Id.* The Restatement of Unfair Competition did not endorse the Restatement (First) factors. See RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39 cmt. d at 430 ("It is not possible to state precise criteria for determining the existence of a trade secret. The status of information claimed as a trade secret must be ascertained through a comparative evaluation of all the relevant factors, including the value, secrecy, and definiteness of the information as well as the nature of the defendant's misconduct.").

14. *Learning Curve Toys, Inc. v. Playwood Toys, Inc.*, 342 F.3d 714, 722 (7th Cir. 2003) (Illinois enactment) ("[W]e do not construe the foregoing factors as a six-part test, in which the absence of evidence on any single factor necessarily precludes a finding of trade secret protection."); *accord* *IVS Hydro, Inc. v. Robinson*, 93 F. App'x. 521, 527 (4th Cir. 2004) (not selected for publication) (West Virginia enactment). Wisconsin initially considered that all six Restatement (First) factors had to be proved for a trade secret to exist. However, enactment of the Uniform Act in Wisconsin transformed the Restatement (First) factors from mandatory requirements into helpful guides. *Minuteman, Inc. v. Alexander*, 434 N.W.2d 773, 778 (Wis. 1989) (Wisconsin enactment) ("We hold that although all six elements of the *Restatement's* test are no longer required, the *Restatement* requirements still provide helpful guidance in deciding whether certain materials are trade secrets under our new definition.").

The Restatement (First) of Torts' description of trade secrets was the basis for the definitions in the Uniform Act¹⁵ and the Restatements of Unfair Competition and Employment Law.¹⁶ Court decisions under the Uniform Act frequently refer to the Restatement (First) of Torts.¹⁷ But to the extent that it is inconsistent, the Uniform Act definition displaces the factors identified by the Restatement (First) of Torts.¹⁸

III. THE UNIFORM ACT

The Uniform Act was developed to fill the gap created by the omission of trade secrets from the Restatement (Second) of Torts.¹⁹ Section 1(4) provides:

15. Richard F. Dole, Jr., *Preemption of Other State Law by the Uniform Trade Secrets Act*, 17 SMU SCI. & TECH. L. REV. 95, 97 (2014) ("The Uniform Act . . . [elaborates] the common-law principles reflected in the 1939 Restatement.").
16. Both Restatements generally conformed their definitions to the Uniform Act, which followed most of the principles of the Restatement (First). See RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39, cmt. b at 427 ("The concept of a trade secret as defined in this Section is intended to be consistent with the definition of 'trade secret' in § 1(4) of the Act."); RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02 cmt. a at 406 ("The definition of 'trade secret' in this Section is consistent with the definition . . . of 'trade secret' used in the Uniform Trade Secrets Act (UTSA) . . .").
17. *E.g.*, MTG Guarnieri Mfg., Inc. v. Cloutre, 239 P.3d 202, 209–11 (Okla. App. 2010) (Oklahoma enactment) (applying both the Uniform Act definition of trade secret and the Restatement (First) six factors).
18. In states that considered all the Restatement (First) factors to be required, enactment of the Uniform Act, for example, changes the factors into helpful guides. *E.g.*, *Minuteman, Inc.*, 434 N.W.2d at 778 ("We hold that although all six elements of the *Restatement's* test no longer are required, the *Restatement* requirements still provide helpful guidance in deciding whether certain materials are trade secrets under our new definition."). *Contra* *Saforo & Assoc. v. Porocel Corp.*, 991 S.W.2d 117, 120–122 (Ark. 1999) (Arkansas enactment) (applying the Restatement (First) factors to determine whether a trade secret existed under the Uniform Act). *Saforo* is criticized in Brandon B. Cate, Note, *Saforo & Assoc. v. Porocel Corp.: The Failure of the Uniform Trade Secrets Act to Clarify the Doubtful and Confused Status of Common Law Trade Secret Principles*, 53 ARK. L. REV. 687, 716 (2000) ("[T]he avowed purpose of the UTSA . . . is lost when courts ignore the statutory requirements . . . and rely instead on displaced common law norms.").
19. Dole, *supra* note 15, at 97–8. See RESTATEMENT (SECOND) OF TORTS, intro. note (AM. LAW INST. 1979) (stating that trade secret law and tort law are independent legal fields). Professor Robert Bone has proposed replacing the traditional trade secret law reflected in the Uniform Act with a regime limited to the enforcement of contracts and traditional torts, perhaps combined with recognition of new property rights conditioned upon public disclosure of the informa-

“Trade secret” means information, including a formula, pattern, compilation, program, device, method, technique, or process that:

- (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and
- (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.²⁰

This definition omits the Restatement (First) of Torts’ requirement that a trade secret be “for continuous use.”²¹ Under the Uniform Act, a trade secret can exist before information has been commercialized.²² A so-called negative trade secret can also exist in research proving that a particular approach will not work.²³ Both the Restatement of Unfair Competition and the

tion that traditional trade secret law would protect only if kept secret. Robert G. Bone, *Exploring the Boundaries of Competitive Secrecy: An Essay on the Limits of Trade Secret Law*, in LAW, INFORMATION, AND INFORMATION TECHNOLOGY 99, 99 (Eli Lederman & Ron Shapira eds., 2001).

20. UNIFORM ACT, *supra* note 7, § 1(4), at 538.

21. See RESTATEMENT (FIRST) OF TORTS, *supra* note 11, § 757, cmt. b.

22. UNIFORM ACT, *supra* note 7, § 1, cmt. at 538; *e.g.*, Learning Curve Toys, Inc. v. Playwood Toys, Inc., 342 F.3d 714, 716–20, 727, 730–31 (7th Cir. 2003) (Illinois enactment) (jury verdict for toy designer against toy manufacturer reinstated with respect to misappropriation of the plaintiff’s design for noise-producing toy train track that the plaintiff had not manufactured); Olson v. Nieman’s, Ltd., 579 N.W.2d 299, 303–04, 314 (Iowa 1998) (Iowa enactment) (potential economic value of inventor’s idea shown by evidence that it could be sold to a manufacturer or patented). The Uniform Act’s application to ideas that have not been commercialized provides a remedy for idea submitters. See Robert C. Denicola, *The New Law of Ideas*, 28 HARV. J. L. & TECH. 195, 198–03, 225–30, 236 (2014).

23. UNIFORM ACT, *supra* note 7, § 1, cmt. at 538; accord RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39, cmt. e (the rejected “use” requirement placed “in doubt protection for so-called ‘negative’ information that teaches conduct to be avoided . . .”). On-Line Techs., Inc. v. Perkin-Elmer Corp., 253 F. Supp. 2d 313, 323, 329–33 (D. Conn. 2003) (Connecticut enactment) (the plaintiff alleged but failed to prove that the defendants’ knowledge of plaintiff’s linearization method, servo control algorithm, and diode laser aided defendants’ development of different approaches). But see Amir H. Khoury, *The Case Against the Protection of Negative Trade Secrets: Sisyphus’ Entrepreneurship*, 54 IDEA 431, 467–75 (2014) (arguing for a negative information defense to trade secret misappropriation involving a final product so that wasteful research failures would not be duplicated by competitors).

Restatement of Employment Law follow this Uniform Act departure from the Restatement (First) of Torts.²⁴

To have rights under the Uniform Act, a plaintiff must allege and prove that the information at issue satisfies the definition of a trade secret.²⁵ This absolute prerequisite to relief requires plaintiffs to objectively and precisely identify the information for which protection is sought.²⁶

The definition has three parts. The preamble is a non-exclusive list of the forms in which trade secrets can appear. This non-exclusive list tracks Comment b. to § 757 of the Restatement (First) of Torts with the addition of “program,” “method,” and “technique” and the omission of “list of customers.”²⁷ Because the list is not exclusive, neither the addition of “program,” “method,” and “technique” nor the omission of “list of customers” affects the information that can be a trade secret.²⁸

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24. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39 cmt. d at 429–30 (discussing abandonment of the continuous use requirement). The Restatement of Employment Law definition of “employer’s trade secret” does not refer to “continuous use.” See RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02. Also, comment a. to § 8.02 states that the definition is consistent with both the Uniform Act and the Restatement of Unfair Competition. *Id.* § 8.02, cmt. a at 406.
 25. See UNIFORM ACT, *supra* note 7, § 1(2) (only a “trade secret” can be misappropriated); Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 342 (2008) [hereinafter Lemley, *IP Rights*] (“The USTA . . . defines the legal rights of trade secret owners by requiring the existence of a secret and defining what constitutes a secret.”).
 26. *E.g.*, *Electro-Craft Corp. v. Controlled Motion, Inc.*, 332 N.W.2d 890, 897 (Minn. 1983) (Minnesota enactment) (“Without a proven trade secret there can be no action for misappropriation, even if defendants’ actions were wrongful.”); see Charles Tait Graves, *Trade Secrets as Property: Theory and Consequences*, 15 J. INTEL. PROP. L. 39, 46–57 (2007) (discussing the importance of requiring a plaintiff to identify objectively and precisely the information sought to be protected); *Electro-Craft Corp.*, 332 N.W.2d at 898 (“Furthermore, given ECC’s lack of specificity, it was impossible for the district court to fashion a meaningful injunction which would not overly restrict legitimate competition for the IBM project.”).
 27. Compare RESTATEMENT (FIRST) OF TORTS, *supra* note 11, and accompanying text, with UNIFORM ACT, *supra* note 20, and accompanying text.
 28. *E.g.*, *East v. Aqua Gaming, Inc.*, 805 So. 2d 932, 934 (Fla. App. 2001) (Florida enactment) (sufficient evidence supported the trial court’s finding that Aqua Gaming’s customer list was a trade secret produced with great expense and effort, was not available from public sources, and had been distilled from larger lists of potential customers into a list of viable customers for its unique business of buying, selling, and refurbishing casino gaming equipment); see *Am. Paper & Packaging Prods., Inc. v. Kirgan*, 228 Cal. Rptr. 713, 716 (Cal. App. 2d Dist. 1986) (California enactment) (“We cannot agree with respondents’ argument that the Legislature’s failure to include customer lists in its definition

Subpart (i) requires that a trade secret derive “actual or potential independent economic value” from “not being generally known to, or readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.”²⁹ Information that is actually or potentially valuable, because it is kept from competitors, is sufficiently novel to be protected.³⁰ “Independent economic value” derived from secrecy can be shown by proof of both adequate secrecy and either actual or potential value.³¹ The Restatement of Unfair Competition, for example, expresses the Uniform Act’s definition as “any information that . . . is sufficiently valuable and secret to afford an actual or a potential economic advantage over others.”³²

In *Thermodyne Food Service Products, Inc. v. AFTEC, Inc.*, affidavits from the plaintiff’s Chief Operating Officer and Project Manager were sufficient to create fact issues as to the secrecy of the alleged trade secrets and the

of trade secrets represents an intentional exclusion of same. The very language of Civil Code 3426.1 subdivision (d) is inclusive, not exclusive.”).

29. UNIFORM ACT, *supra* note 7, § 1(4)(i) at 538. See 1 Melvin F. Jager, TRADE SECRETS LAW § 5.15 (2013) (“This language defines *secrecy*, not a *value* requirement per se.”); Ramon A. Klitzke, *The Uniform Trade Secrets Act*, 64 MARQ. L. REV. 277, 288 (1980) (Under the Uniform Act, a trade secret “must have actual or potential ‘independent economic value’ stemming from its secrecy.”).
30. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974) (“[S]ome novelty will be required if merely because that which does not possess novelty is usually known; secrecy, in the context of trade secrets, thus implies at least minimal novelty.”); see also Eric R. Claeys, *Private Law Theory and Corrective Justice in Trade Secrecy*, 4 J. TORT LAW 30 (Oct. 2011), available at <http://ssrn.com/abstract=1799554> (“The work must be . . . minimally novel . . . nonascertainable by significant research by a reasonable competent competitor.”).
31. See, e.g., *Electro-Craft Corp.*, 332 N.W.2d at 900–03 (Minnesota enactment) (former employer proved that information provided a competitive advantage and had economic value but failed to prove adequate secrecy).
32. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39, cmt. b at 427 (The Restatement of Unfair Competition concept of trade secret is “intended to be consistent with the definition of ‘trade secret’ in § 1(4) of the Act.”); see *Electro-Craft Corp.*, 332 N.W.2d at 900–01 (Minnesota enactment) (information’s conferral of a competitive advantage showed that it had economic value). *Morlife, Inc. v. Perry*, 66 Cal. Rptr. 2d 731, 736 (Cal. App. 1st Dist. 1997) (California enactment) (stating that “[t]he requirement that a customer list must have economic value to qualify as a trade secret has been interpreted to mean that the secrecy of the information provides a business with a ‘substantial business advantage.’”). The Restatement (First) described a trade secret as information that creates an opportunity to obtain an advantage over competitors. See RESTATEMENT (FIRST) OF TORTS, *supra* note 11 and accompanying text.

plaintiff's reasonable efforts to maintain that secrecy.³³ The court denied the Defendants' motion for partial summary judgment on these issues.³⁴ But testimony from independent experts with respect to the existence of actual or potential value and adequate secrecy increases the likelihood of success.³⁵

Sufficient secrecy exists if information is not generally known to or readily ascertainable through proper means by others who can obtain value from its disclosure or use.³⁶ The issue is what actual and potential competitors generally know and readily can ascertain by proper means.³⁷ Both the Restatement (First) of Torts and the Restatement of Unfair Competition frame their secrecy tests this way.³⁸ Excluding from protection what the general public knows, however, could deny protection for new combinations of well-known facts;³⁹ this approach also would treat as a trade secret informa-

33. *Thermodyne Food Serv. Prods., Inc. v. AFTEC, Inc.*, 940 F. Supp. 1300 (N.D. Ill. 1996) (Illinois enactment).

34. *Id.* at 1305–07.

35. JAMES POOLEY, *TRADE SECRETS* (ALM) § 11.04 (2015) [hereinafter POOLEY, *TRADE SECRETS*] (“[C]hances of success improve by drawing on independent viewpoints.”). However, an independent fact expert cannot testify as to whether information is a trade secret as a matter of law. *E.g.*, *Contour Design, Inc. v. Chance Mold Steel Co., Ltd.*, 794 F. Supp. 2d 315, 320 (D. N.H. 2011) (New Hampshire enactment) (testimony of fact expert inadmissible with respect to principles of trade secret law).

36. *UNIFORM ACT*, *supra* note 7, § 1(4) (i) at 538.

37. *E.g.*, *Noah v. Enesco Corp.*, 911 F. Supp. 299, 304 (N.D. Ill. 1995) (Illinois enactment) (“The Act ‘preclude[s] protection for information not generally known to the public but clearly understood in a particular industry.’”); *see also* *Mangren Research & Dev. Corp. v. Nat’l Chem. Co., Inc.*, 87 F.3d 937, 942 (7th Cir. 1996) (Illinois enactment) (stating in dictum that “trade secret protection for information generally known within an industry even if not to the public at large . . .” is precluded.); *Stenstrom Petroleum Servs. Grp., Inc. v. Mesch*, 874 N.E.2d 959, 972 (Ill. App. 2d Dist. 2007) (Illinois enactment) (stating in dictum that “[i]nformation that is generally known or understood within an industry, even if not known to the public at large, does not qualify as a trade secret.”).

38. *See* *RESTATEMENT (FIRST) OF TORTS*, *supra* note 11, § 757, cmt. b (a trade secret is information “which . . . gives an opportunity to obtain an advantage over competitors who do not know or use it.”); *RESTATEMENT OF UNFAIR COMPETITION*, *supra* note 1, § 39, cmt. f at 431–32 (“[T]he requirement of secrecy is satisfied if it would be difficult or costly for others who could exploit the information to acquire it without resort to the wrongful conduct proscribed under § 40 Information that is generally known or readily ascertainable by proper means (see § 43) by others to whom it has potential economic value is not protectable as a trade secret.”).

39. *See Hertz v. Luzenac Grp.*, 576 F.3d 1103, 1109–13 (10th Cir. 2009) (Colorado enactment) (reversing summary judgment for a former employee because the trial court had focused exclusively upon knowledge of the elements of the for-

tion well-known to actual and potential competitors that was not known by the general public.⁴⁰ Nevertheless, non-uniform amendments in six states require that a trade secret be not generally known to “the public” as well as to persons who can derive value from its disclosure or use.⁴¹

At least two (possibly three) of these states also require that a trade secret be not readily ascertainable through proper means by either *the public* or actual and potential competitors.⁴² For example, the Nevada non-uniform amendment states, “not being generally known to, and not being readily ascertainable by proper means by the public or any other persons who can obtain commercial or economic value from its disclosure or use”⁴³ Because “the public” is one of two referents, it is unlikely, but not impossible, that “the public” in these statutes could be construed to refer to the “economically relevant” public of actual and potential competitors.⁴⁴ If “the public” is not so restricted, this non-uniform amendment places an additional and unnecessary burden of proof upon a plaintiff that could result in a denial

mer employer’s production process without also considering whether the process as a whole was well-known); *accord* Rivendell Forest Prods., Ltd. v. Georgia-Pacific Corp., 28 F.3d 1042, 1045–46 (10th Cir. 1994) (Colorado enactment) (reversing summary judgment for a former employee because the trial court had focused exclusively upon knowledge of the elements of the software without also considering the protectability of the software system as a whole).

40. As amended, in 1985, the comment to § 1 of the Uniform Act states in part: “If the principal persons who can obtain economic benefit from information are aware of it, there is no trade secret. A method of casting metal, for example, may be unknown to the general public but readily known in the foundry industry.” UNIFORM ACT, *supra* note 7, § 1, cmt. at 538; U.S. v. Lange, 312 F.3d 263, 267 (7th Cir. 2002) (*Lange* is an Economic Espionage Act case in which Judge Easterbrook observed in dictum that: “A problem with using the general public as the reference group for identifying a trade secret is that many things unknown to the public at large are well known to engineers, scientists, and others whose intellectual property the Economic Espionage Act was enacted to protect.”). *See infra* notes 82–118 and accompanying text for discussion of the Economic Espionage Act.
41. ALA. CODE § 8-27-2(1) (c) (LexisNexis 2002); CAL. CIV. CODE § 3426.1(d) (West 1997); NEV. REV. STAT. ANN. § 600A.030(5) (a) (LexisNexis 2012); ORE. REV. STAT. § 646.461(4) (a) (2012); S.C. CODE ANN. § 39-8-20(5)(a)(i) (2014 Supp.). A Georgia non-uniform variation refers to information “which is not commonly known by . . . the public.” GA. CODE ANN. § 10-1-761(4) (2009).
42. *See* Nevada and South Carolina non-uniform amendments in *supra* note 41. The Georgia non-uniform amendment requires that information be not “available to the public.” *Id.*
43. NEV. REV. STAT. ANN. § 600A.030(5)(a) (2010).
44. *See Lange*, 312 F.3d at 267.

of protection to valuable new combinations of public domain elements.⁴⁵ But, because it is in addition to the requirement that the information not be generally known to persons who could derive value from its disclosure or use, the reference to “the public” further burdens a plaintiff without increasing the information that qualifies as a trade secret.

On the other hand, a Nebraska non-uniform amendment deleted the qualifying words “generally” before “known to” and “readily” before “ascertainable.”⁴⁶ Accordingly, if information is capable of being ascertained by any theoretical proper means, no matter how improbable, expensive, or time-consuming that proper means is, the information cannot be a statutory trade secret in Nebraska!⁴⁷ However, the significance of both these Nebraska non-uniform amendments and of Nebraska’s enactment of the Uniform Act also was eroded by the state’s deletion of the Uniform Act provision preempting common-law principles of trade secret misappropriation.⁴⁸ The combined effect of these non-uniform amendments is to preserve in Nebraska the more inclusive common-law definition of trade secret and to minimize the significance of Nebraska’s enactment of the Uniform Act.⁴⁹

The Uniform Act’s exclusion of information that is “readily ascertainable by proper means”⁵⁰ was omitted by four states.⁵¹ Omission in California was proposed by the Patent, Trademark, and Copyright Section of the California State Bar on the ground that this “difficult to determine” issue would

45. See *Hertz*, 576 F.3d at 1109–13 (Colorado enactment) (reversing summary judgment for a former employee because the trial court had focused exclusively upon knowledge of the elements of the former employer’s production process without also considering whether the process as a whole was well known).

46. NEB. REV. STAT. § 87-502(4)(a) (2008).

47. See *First Express Serv. Grp., Inc. v. Easter*, 286 Neb. 912, 924–27 (Neb. 2013) (Nebraska enactment) (holding customer information that is ascertainable by any proper means is not protectable); Gerald B. Buechler, Jr., *Revealing Nebraska’s Trade Secrets Act*, 23 CREIGHTON L. REV. 323, 339 (1990) (“[T]he . . . [Nebraska non-uniform amendment] extends the concept of permissible reverse engineering to its illogical extreme.”).

48. *Id.* at 342–43.

49. *Id.* at 343.

50. UNIFORM ACT, *supra* note 7, § 1(4)(i).

51. CAL. CIV. CODE § 3426.1(d) (West 2015); COLO. REV. STAT. ANN. § 7-74-102(4) (West 2013); 765 ILL. COMP. STAT. ANN. 1065/2(d)(1) (LexisNexis 2014); ORE. REV. STAT. § 646.461(4)(a) (2012). By contrast, the Nevada and South Carolina non-uniform amendments require that information be not readily accessible by proper means by “the public.” Refer to the authority in *supra* note 41. This raises the same issues as the non-uniform amendments requiring that information be not generally known by the public. See *supra* notes 41–45 and accompanying text.

generate unnecessary litigation.⁵² However, the California deletion was coupled with non-uniform commentary stating that information being readily ascertainable by proper means is a defense to misappropriation.⁵³ James Pooley consequently predicted that the apparent significant statutory change would have little effect.⁵⁴

Experience in Illinois, which also deleted “readily ascertainable by proper means,”⁵⁵ supports Pooley’s insight. The Restatement (First) of Torts identified two types of evidence relevant to what is readily ascertainable: the amount of effort or money expended by the plaintiff in developing information and the ease or difficulty with which the information could be acquired by others using proper means.⁵⁶ The Restatement (First) also observed that

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52. Gloria Mae Wong, *The Secret’s Out: California’s Adoption of the Uniform Trade Secrets Act—Effects on the Employer-Employee Relationship*, 20 LOY. L.A. L. REV. 1167, 1213–14, n.231 (1987).
 53. CAL. CIV. CODE § 3426.1(d) (West 1997) (“[T]he assertion that a matter is readily ascertainable by proper means remains available as a defense to misappropriation.”).
 54. James H. Pooley, *The Uniform Trade Secrets Act: California Civil Code 3426*, 1 SANTA CLARA HIGH TECH. L. J. 193, 198–99, 216 (1985); see *American Paper & Packaging Prods., Inc. v. Kirgan*, 183 Cal. App. 3d 1318, 1326 (Cal. Ct. App. 1986) (California enactment) (“While the information sought to be protected here, that is lists of customers who operate manufacturing concerns and who need shipping supplies to ship their products to market, may not be generally known to the public, they certainly would be known or readily ascertainable to others in the shipping business.”); *Morlife, Inc. v. Perry*, 56 Cal. App. 4th 1514, 1522 (Cal. Ct. App. 1997) (California enactment) (“In the case at bar, the court heard testimony that Morlife’s customers were not readily ascertainable, but only discoverable with great effort”). *But see* *Abba Rubber Co. v. Seaquist*, 235 Cal. App. 3d 1, 21, n. 9 (Cal. Ct. App. 1991) (California enactment) (“[O]ur legislature chose to exclude from the definition only that information which the industry already knows, as opposed to that which the industry could easily discover.”).
 55. See CAL. CIV. CODE § 3426.1(d) (West 2015); COLO. REV. STAT. ANN. § 7-74-102(4) (West 2013); 765 ILL. COMP. STAT. ANN. 1065/2(d)(1) (LexisNexis 2014); ORE. REV. STAT. § 646.461(4)(a) (2012). By contrast, the Nevada and South Carolina non-uniform amendments require that information be not readily accessible by proper means by “the public.” Refer to the authority in *supra* note 41. This raises the same issues as the non-uniform amendments requiring that information be not generally known by the public. See *supra* notes 41–45 and accompanying text.
 56. RESTATEMENT (FIRST) OF TORTS, *supra* note 11, § 757 cmt. b (1939). The ease or difficulty with which the information could be acquired by others using proper means is most important. In *Learning Curve Toys*, the Seventh Circuit Court of Appeals reinstated a jury verdict for a toy designer who developed a toy design for less than one dollar in less than a half hour that defendant had been unable to replicate by proper means. *Learning Curve Toys, Inc. v.*

“[m]atters which are completely disclosed by the goods which one markets cannot be his secret.”⁵⁷ In *Hamer Holding Group, Inc. v. Elmore*,⁵⁸ an Illinois intermediate appellate court rejected the plaintiff’s contention that the Illinois non-uniform amendment had eliminated “readily ascertainable by proper means” as a defense. The court held that the ease with which information could be discovered legally was “the key” to whether adequate “secrecy” existed.⁵⁹ Furthermore, in *Computer Care v. Service Systems Enterprises, Inc.*,⁶⁰ a Seventh Circuit decision applying Illinois law, a court of appeals panel reversed a preliminary injunction in part due to the plaintiff’s failure to present evidence of “the amount of time, money, or effort” required to develop the information at issue.⁶¹ The Indiana Supreme Court also has equated “not readily ascertainable by proper means” with exclusion of information that does not require a substantial investment in time, expense, or effort lawfully to develop.⁶²

The Uniform Act requirement that a trade secret be “the subject of efforts that are reasonable under the circumstances to maintain its secrecy”⁶³ has been the subject of revision rather than omission by enacting jurisdic-

Playwood Toys, Inc., 342 F.3d 714, 728–29 (7th Cir. 2003) (Illinois enactment). The effort and money expended by the plaintiff in developing the information has been described as a proxy for the effort and expense that a competitor would have to engage in to develop the information by proper means. AMY E. DAVIS ET AL., GUIDE TO PROTECTING AND LITIGATING TRADE SECRETS 11 (2012).

57. RESTATEMENT (FIRST) OF TORTS, *supra* note 11, § 757 cmt. b. However, a trade secret can exist prior to the marketing of a product that will disclose the secret completely. *Learning Curve Toys*, 342 F.3d at 729–30 (Illinois enactment) (reinstating jury verdict of misappropriation with respect to an unmarketed toy design that would be disclosed completely by the sale of the toy).
58. *Hamer Holding Grp., Inc. v. Elmore*, 202 Ill. App. 3d 994, 1012 (Ill. App. Ct. 1991), *reh’g denied*, 136 Ill. 2d 544, 544 (Ill. 1991) (Illinois enactment).
59. *Id.*; *accord* *Weins v. Sporleder*, 569 N.W.2d 16, 21 (S.D. 1997) (South Dakota enactment).
60. *Computer Care v. Serv. Sys. Enter., Inc.*, 982 F.2d 1063, 1072 (7th Cir. 1992) (Illinois enactment).
61. *Id.* at 1072–75.
62. *Amoco Prod. Co. v. Laird*, 622 N.E.2d 912, 919 (Ind. 1993) (Indiana enactment). *See generally* Sharon K. Sandeen, *The Evolution of Trade Secret Law And Why Courts Commit Error When They Do Not Follow The Uniform Trade Secrets Act*, 33 HAMLINE L. REV. 493, 522 (2010) (“[E]vidence of the investment that was made to create the information may be relevant to show that the information cannot be easily recreated . . .”).
63. UNIFORM ACT, *supra* note 7, § 1(4)(ii). Efforts to maintain secrecy typically include both physical steps and steps to give notice of trade secret rights. In *Zemco Manufacturing, Inc. v. Navistar International Transportation Corp.*, the court gave the following examples:

tions.⁶⁴ On the other hand, the Restatement (First) of Torts identified “the extent of measures taken . . . to guard the secrecy of the information” as one of six non-exclusive factors relevant to the existence of a trade secret.⁶⁵ The Restatement of Unfair Competition commented on the Uniform Act’s requiring evidence of reasonable efforts to maintain secrecy for a trade secret to exist as follows:

Whether viewed as an independent requirement or as an element to be considered with other factors relevant to the existence of a trade secret, the owner’s precautions should be evaluated in light of the other available evidence relating to the value and secrecy of the information. Thus, if the value and secrecy of the information

1) requiring employees to sign confidentiality agreements or otherwise advising them of the confidential nature of the process; 2) posting warning or cautionary signs, or placing warnings on documents; 3) requiring visitors to sign confidentiality agreements, sign in, and shielding the process from their view; 4) segregating information; 5) using unnamed or code-named ingredients; and 6) keeping secret documents under lock.

759 N.E.2d 239, 246 (Ind. App. 2001), *transfer to Indiana Supreme Court den.*, 774 N.E.2d 519 (Ind. 2002) (Indiana enactment). To the extent that trade secrets are stored electronically, electronic precautions should be taken. *See generally* Elizabeth A. Rowe, Rethinking ‘Reasonable Efforts’ to Protect Trade Secrets in a Digital World (Sept. 5, 2008) (unpublished manuscript) (available at http://works.bepress.com/elizabeth_rowe/2). Storing trade secrets in the “Cloud” involves another level of precautions. *See* Sharon K. Sandeen, *Lost in the Cloud: Information Flows and the Implications of Cloud Computing for Trade Secret Protection*, 19 VA. J. L. & TECH. 1 (2014). Several appellate courts have indicated that a small business can utilize less elaborate precautions than a large business. *E.g.*, *Learning Curve Toys, Inc. v. Playwood Toys, Inc.*, 342 F.3d 714, 725–26 (7th Cir. 2003) (Illinois enactment) (the jury could have found that the small business relied on an oral confidentiality agreement); *Niemi v. NHK Spring Co.*, 543 F.3d 294, 299–303 (6th Cir. 2008) (Ohio enactment) (small business’ assertion that it had relied on an oral confidentiality agreement created a fact issue); *see also* *Elm City Cheese Co. v. Federico*, 251 Conn. 59, 85 (Conn. 1999) (Connecticut enactment) (excusing the plaintiff privately-held corporation’s failure to obtain nondisclosure and noncompetition agreements from the defendant, its C.P.A. and Vice President, in view of the plaintiff’s owners’ close personal relationship with the defendant).

64. *E.g.*, COLO. REV. STAT. ANN. § 7-74-102(4) (West 2013) (“To be a ‘trade secret’ the owner thereof must have taken measures to prevent the secret from becoming available to persons other than those selected by the owner to have access thereto for limited purposes.”); D.C. CODE ANN. § 36-401(4)(B) (West 2014) (“ . . . is the subject of reasonable efforts to maintain its secrecy.”).

65. RESTATEMENT (FIRST) OF TORTS, *supra* note 11, § 757 cmt. b (1939).

are clear, evidence of specific precautions taken by the trade secret owner may be unnecessary.⁶⁶

Professor Mark Lemley believes that it is preferable to treat reasonable efforts to maintain secrecy as evidence of secrecy as the Restatement (First) of Torts and the Restatement of Unfair Competition do,⁶⁷ rather than as a condition to the existence of a trade secret.⁶⁸ But the Uniform Act does not impose a difficult-to-satisfy condition. “Reasonable efforts” do not require extreme or unduly expensive efforts.⁶⁹ What is most important is controlling disclosure to employees and third parties, including licensees.⁷⁰ Moreover, it may be questioned whether a person asserting trade secret rights in litigation should ever rely upon the value and secrecy of the information being so clear that admissible evidence of secrecy and value prudently could be omitted.⁷¹ The Uniform Act’s requirement that a trade secret involve reasonable efforts to maintain secrecy also encourages desirable precautions that give notice of claimed trade secret rights⁷² and denies protection to claims that a developer

66. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1. As the Restatement of Unfair Competition recognizes, the efforts of a person claiming trade secret rights to maintain secrecy also are evidence that the information involved has value. *E.g.*, *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174, 179 (7th Cir. 1991) (Illinois enactment) (“the owner’s precautions . . . evidence that the secret has real value”).
67. The Restatement of Employment Law and the EEA follow the Uniform Act’s approach. *Compare* UNIFORM ACT, *supra* note 7, and accompanying text, with RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02(b), RESTATEMENT (FIRST) OF TORTS, *supra* note 11 and accompanying text, and 18 U.S.C. § 1839(3)(A) (2012).
68. Lemley, *IP Rights*, *supra* note 25, at 348–50.
69. UNIFORM ACT, *supra* note 7, § 1(4); *Rockwell Graphics Sys., Inc.*, 925 F.2d at 180 (Illinois enactment) (Posner, J.) (dictum) (“If trade secrets are protected only if their owners take extravagant, productivity-impairing measures to maintain their secrecy, the incentive to invest resources in discovering more efficient methods of production will be reduced, and with it the amount of invention.”).
70. UNIFORM ACT, *supra* note 7, § 1(4).
71. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1. The Restatement of Unfair Competition’s reference to situations in which both value and secrecy are clear may be more theoretical than real.
72. *See Incase, Inc. v. Timex Corp.*, 488 F.3d 46, 53 (1st Cir. 2007) (Massachusetts law) (“The fact that Incase kept its work for Timex private from the world is not sufficient . . . [T]here must be affirmative steps to preserve the secrecy of the information as against the party against whom the misappropriation claim is made.”); *see also* Adam Waks, *Where the Trade Secret Sits: How the Economic Espionage Act Is Inflaming Tensions in the Employment Relationship, and How Smart Employers and Employees Are Responding*, 3 N.Y.U. J. INTEL. PROP. & ENT. L. 391, 406 (2014) (describing “precautions against rea-

of information gave no thought until the advent of competition indicated the value of the information.⁷³

Most of the non-uniform amendments to the definition of trade secret have involved expansion of the illustrations of the information that can be a trade secret. Ohio, for example, added, “the whole or any portion or phase of any scientific or technical information, design . . . procedure . . . or improvement, or any business information or plans, financial information, or listing of names, addresses, or telephone numbers”⁷⁴ On the other hand, out of an abundance of caution, some states added “but not limited to,” or an equivalent, following “including” prior to the list of illustrations,⁷⁵ whereas other states accepted the recommended definition.⁷⁶ Alaska was unique in deleting all the illustrations and defining a trade secret as “information” that satisfied the substantive definition,⁷⁷ as contemporary Restatements do.⁷⁸

On balance, except in Nebraska,⁷⁹ the non-uniform amendments to the definition of trade secret have not had a major impact. Even the definition of trade secret in the North Carolina Trade Secrets Protection Act, which otherwise is not regarded by the ULC as substantially similar to the Uniform Act,⁸⁰ is comparable to the Uniform Act definition.⁸¹

sonably foreseeable intrusions” as an employer “best practice.”). *See contra* Robert G. Bone, *Trade Secrecy, Innovation and the Requirement of Reasonable Secrecy Precautions*, in *THE LAW AND THEORY OF TRADE SECRECY* 67, 72–75 (Rochelle C. Dreyfuss & Katherine J. Strandburg eds., 2011) (Although inclined to support abolition of the reasonable efforts requirement, Professor Bone recognized that the extent of the precautions adopted can signal to competitors both the perceived value of trade secrets and the aggressiveness of the business claiming them.).

73. Elizabeth A. Rowe, *Contributory Negligence, Technology, and Trade Secrets*, 17 *GEO. MASON L. REV.* 1, 8 (2009) (“Normatively, it makes sense to treat the reasonable efforts requirement as a separate requirement because it encourages the courts and litigants to filter out those putative trade secrets whose value is only recognized by the plaintiff after the alleged misappropriation occurs.”).

74. *E.g.*, OHIO REV. CODE ANN. § 1333.61(D) (LexisNexis 2015); *accord* COLO. REV. STAT. § 7-74-102(4) (LexisNexis 2013); GA. CODE ANN. § 10-1-761(4) (LexisNexis 2009). A number of the additions are discussed in Linda B. Samuels & Bryan K. Johnson, *The Uniform Trade Secrets Act: The States’ Response*, 24 *CREIGHTON L. REV.* 49, 62–67 (1990).

75. *E.g.*, IOWA CODE § 550.2(4) (2015).

76. *E.g.*, FLA. STAT. § 688.002(4) (2015).

77. ALASKA STAT. § 45.50.940(3) (2015).

78. *See* RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1; RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02.

79. *See supra* notes 46–49 and accompanying text.

80. *See supra* notes 9–10 and accompanying text.

81. *Compare* N. C. GEN. STAT. § 66-152(3) (2013) (the statute reads as follows:

IV. THE ECONOMIC ESPIONAGE ACT

On October 11, 1996, President Clinton signed the Economic Espionage Act (EEA),⁸² the first significant federal statute specifically criminalizing trade secret theft.⁸³ The EEA is a combination of two bills, one dealing with economic espionage intended to benefit foreign governments, foreign instrumentalities, or foreign agents⁸⁴ and the other dealing with industrial espionage.⁸⁵ Both bills initially referred to “proprietary economic information,”⁸⁶ with definitions modeling the Uniform Act definition of trade secret.⁸⁷ The enacted statute applies to both economic espionage involving trade secrets and theft of trade secrets.⁸⁸ Section 1831, the economic espionage provision, requires that an actor either intend or know that the offense “will benefit any foreign government, foreign instrumentality, or foreign agent.”⁸⁹ Section 1832, the industrial espionage provision, requires proof of an intent to convert a trade secret related to a product or service used in or intended for use

“Trade Secret” means business or technical information, including but not limited to a formula, pattern, program, device, compilation of information, method, technique, or process that:

- a. Derives independent actual or potential commercial value from not being generally known or readily ascertainable through independent development or reverse engineering by persons who can obtain economic value from its disclosure or use; and
- b. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

The existence of a trade secret shall not be negated merely because the information comprising the trade secret has also been developed, used, or owned independently by more than one person, or licensed to other persons.),

with *supra* note 20 (The Comment to § 1 of the Uniform Act states that independent developers can acquire rights in the same trade secret and that controlled disclosure to employees and licensees is consistent with relative secrecy. UNIFORM ACT, *supra* note 7, § 1 & cmt.

82. Economic Espionage Act, Pub. L. 104-294, 104th Cong. 2d Sess. (1996) (codified as amended at 18 U.S.C. §§ 1831–1839 (2012)).
83. POOLEY, TRADE SECRETS, *supra* note 35, § 13.3.
84. Economic Security Act of 1996, S. 1557, 104th Cong. (1996).
85. S. Rep. 104-359, 104th Cong. 2d Sess. (1996) (discussing S.1556 proposing the Industrial Espionage Act of 1996).
86. *Id.* at 3 (discussing S. 1556). S. 1557, the proposed Economic Security Act of 1996, added “vital” to the phrase. S. 1557, § 901(4), 104th Cong., 2d Sess. (1996) (definition of “vital proprietary economic information.”).
87. *Id.* at 16 (“This definition is closely modeled on the definition of a ‘trade secret’ used in the Uniform Trade Secrets Act.”).
88. 18 U.S.C. §§ 1831(a), 1832(a) (2012).
89. § 1831(a) (preamble).

in interstate or foreign commerce to the economic benefit of anyone other than the owner of the trade secret either intending or knowing that the trade secret owner will be injured.⁹⁰

The penalties are severe. Violation of § 1831, the economic espionage provision, can subject an individual to a fine of up to \$5,000,000 or fifteen years imprisonment, or both;⁹¹ an organization can be fined the greater of \$10,000,000 or three times the value of the stolen trade secret to the defendant, including costs saved.⁹² Violation of § 1832, the industrial espionage provision, can subject an individual to the greater of a fine of up to two times the gross gain from the offense, the gross loss from the offense, or \$250,000, whichever is larger, or imprisonment for up to ten years, or both;⁹³ and an organization can be fined of up to \$5,000,000.⁹⁴ Attempts and conspiracies to violate both provisions have the same penalties as actual violations.⁹⁵ Yet a defendant can be convicted of an attempt or participation in a conspiracy based upon evidence that the defendant believed the information was a trade secret; the government need not prove that a statutory trade secret existed.⁹⁶ In addition, the property involved in and derived from misappropriation is subject to forfeiture,⁹⁷ and a convicted defendant must pay restitution to victims.⁹⁸

Both provisions mentioned above share a definition of “trade secret” based largely on the Uniform Act:

all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes,

90. § 1832(a) (preamble).

91. § 1831(a).

92. *Id.* (b).

93. § 1832(a) (because the EEA does not specify the maximum fine for individual violators the general felony maximums apply); § 3571(b)(3) (2012) (an individual can be fined a maximum of either two times the gross gain or gross loss caused by the offense, whichever is larger, or \$250,000); § 3571(b)(2)–(3); § 3571(d).

94. § 1832(b).

95. *See* § 1831(a)(4)–(5); § 1832(a)(4)–(5).

96. *E.g.*, *U.S. v. Hsu*, 155 F.3d 189, 204 (3d Cir. 1998) (“[P]roof that the defendants sought to steal actual trade secrets is not an element of the crimes of attempt or conspiracy under the EEA.”); *see also* *U.S. v. Hsu*, 40 F. Supp. 2d 623, 630–31 (E.D. Pa. 1999) (denying a motion to dismiss an EEA indictment due to the vagueness of the EEA definition of trade secret primarily because the defendant was charged with attempt and conspiracy).

97. §§ 1834, 2323(a)(1).

98. §§ 1834, 2323, 3663A(a)(1).

whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if

(A) the owner thereof has taken reasonable measures to keep such information secret;

and

(B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public⁹⁹

Notwithstanding its expansive language and severe penalties, the EEA has been sparingly enforced by the U.S. Justice Department. A 2012 analysis of enforcement actions found approximately 124 prosecutions in the first sixteen years, an average of less than eight a year.¹⁰⁰ Moreover, prosecutions occurred in less than forty-five percent of federal judicial districts.¹⁰¹ Less than ten percent of the prosecutions involved economic espionage. More than ninety percent involved industrial espionage.¹⁰² The sparse number of annual prosecutions suggests that the EEA has not been a major deterrent to trade secret theft.¹⁰³

The EEA illustrative list¹⁰⁴ of the forms and types of information that can be a trade secret is far more elaborate than the Uniform Act's illustrative list, but that is not a substantive difference.¹⁰⁵ Nor is the EEA's express references to "intangible" trade secrets and "whether or how" memorialized. Deliberately memorizing a trade secret that has not been physically

99. § 1839(3); see H.R. Rep. No. 104-788, 104th Cong., 2d Sess. at 12 (1996) ("The definition of 'trade secret' is based largely on the definition of that term in the Uniform Trade Secrets Act.").

100. Peter J. Toren, *An Analysis of Economic Espionage Act Prosecutions: What Companies Can Learn From It and What the Government Should Be Doing About It!*, 84 PTCJ 884 (2012), <http://petertoren.com/wp-content/uploads/2012/10/toren-eea2.pdf>.

101. *Id.* at 886.

102. *Id.*

103. *Id.* ("[E]nhancing the certainty of punishment produces a stronger deterrent effect than enhancing the severity of the punishment.").

104. H.R. Rep. No. 104-788, 104th Cong., 2d Sess. at 12 (1996) ("These general categories of information are included in the definition of trade secret for illustrative purposes and should not be read to limit the definition of trade secret. It is the Committee's intent that this definition be read broadly.").

105. James H. A. Pooley et al., *Understanding the Economic Espionage Act of 1996*, 5 TEX. INTELL. PROP. L.J. 177, 189 (1997) [hereinafter Pooley et al., *Understanding the EEA*] ("Because of the expansive interpretation already given to the UTSA definition, the EEA will probably apply to the same types of information").

memorialized is actionable under the Act.¹⁰⁶ In *Ed Nowogroski Insurance, Inc. v. Rucker*, the Washington Supreme Court stated in an en banc opinion:

The form of information, whether written or memorized, is immaterial under the . . . Uniform Trade Secrets Act [which] makes no distinction about the form of trade secrets. Whether the information is on a CD, a blueprint, a film, a recording, a hard paper copy or memorized by the employee, the inquiry is whether it meets the definition of trade secret under the Act¹⁰⁷

On the other hand, the EEA defines trade secrets as information not generally known to, or readily and ascertainable by proper means by “the public”;¹⁰⁸ whereas the Uniform Act refers to trade secrets as information not generally known to, and not readily ascertainable by proper means by “persons who can obtain economic value from its disclosure or use.”¹⁰⁹ The issue is whether the EEA refers to the public “in general” or to the “economically relevant” public; namely, actual and potential competitors of the person claiming trade secret rights.

The federal courts have addressed the issue in dicta but have avoided resolving it authoritatively. In *United States v. Hsu*,¹¹⁰ the Third Circuit commented in dicta, “[t]he EEA . . . indicates that a trade secret must not be generally known to, or readily ascertainable by, the general public, rather than simply those who can obtain economic value from the secret’s disclosure or use.”¹¹¹

The Seventh Circuit subsequently discussed whether “the public” is the “general” public or the “economically relevant” public. In *United States v. Lange*,¹¹² Judge Easterbrook observed in dicta:

106. RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02, Reporters’ Notes to cmt. g at 421 (“[M]ore than 40 states have adopted the UTSA in a substantially similar form and the majority position is that memorized information can be the basis for a trade-secret claim.”).

107. *Ed Nowogroski Ins., Inc. v. Rucker*, 971 P.2d 936, 948 (Wash. 1999) (en banc) (Washington enactment); *accord* *Al Minor & Assoc. v. Martin*, 881 N.E.2d 850, 855 (Ohio 2008) (Ohio enactment) (“[I]nformation . . . is protected by the UTSA, regardless of the manner, mode, or form in which it is stored—whether on paper, in a computer, in one’s memory, or in any other medium.”); *see also* *Stampede Tool Warehouse, Inc. v. May*, 651 N.E.2d 209, 217 (Ill. App. Ct. 1995) (Illinois enactment) (“[M]emorization is one method of misappropriation.”).

108. 18 U.S.C. § 1839(3)(B) (2012).

109. UNIFORM ACT, *supra* note 7, § 1(4)(i).

110. *U.S. v. Hsu*, 155 F.3d 189 (3d Cir. 1998).

111. *Id.* at 196.

112. *U.S. v. Lange*, 312 F.3d 263 (7th Cir. 2002).

A problem with using the general public as the reference group for identifying a trade secret is that many things unknown to the public are well known to engineers, scientists and others whose intellectual property the Economic Espionage act was enacted to protect Section 1839(3)(B) replaces “persons who can obtain economic value from its disclosure or use” with “the public.” The prosecutor believes that the substitution supports the conclusion that Congress referred to the *general* public. Yet one could say instead that “the public” is shorthand for the longer phrase, which then would be read as “the *economically relevant* public”—that is, the persons whose ignorance of the information is the source of its economic value.¹¹³

The Ninth Circuit has noted the conflicting dicta without taking a position.¹¹⁴ Federal district courts also have avoided ruling upon the issue by finding that the information at issue was neither generally known to nor readily ascertainable by proper means by both the general public and the economically relevant public.¹¹⁵

The decisive consideration should be the severe penalties for EEA violations.¹¹⁶ Interpreting the reference as being to the *general* public would dramatically lower the threshold for imposing these penalties.¹¹⁷ It also would unmoor the definition of trade secret from the source of the value of the information at issue.¹¹⁸

113. *Id.* at 267.

114. *U.S. v. Chung*, 659 F.3d 815, 825 (9th Cir. 2011).

115. *E.g.*, *U.S. v. Jin*, 833 F. Supp. 2d 977, 1007–08 (N.D. Ill. 2012), *aff'd*, 733 F.3d 718 (7th Cir. 2013).

116. *See supra* notes 91–98 and accompanying text.

117. *See* Pooley et al., *Understanding the EEA*, *supra* note 105, at 191 (“We think it unlikely that such a dramatic change was intended by Congress, however. Thus, we expect that the relevant test will continue to be whether those who have an economic interest in discovering the secret can easily do so.”). *Contra* Comment, *Ninth Circuit Upholds First Trial Conviction Under § 1831 of the Economic Espionage Act of 1996*, 125 HARV. L. REV. 2177, 2184 (2012) (“[N]arrowly construing ‘the public’ under the EEA could saddle the government with a prohibitive burden of proof. In accordance with the EEA’s legislative purpose, courts should thus interpret the ‘readily ascertainable’ prong to refer more expansively to the general public.”).

118. *See U.S. v. Lange*, 312 F.3d 263, 267 (7th Cir. 2002) (“Section 1839(3)(B) as a whole refers to the source of economic value—that the information is not known to or easily discoverable by persons who could use it productively. To make this work, either the phrase ‘readily ascertainable’ or the phrase ‘the public’ must be understood to concentrate attention on either potential users of the information, or proxies for them”).

V. THE MODERN RESTATEMENTS

The 1995 Restatement of Unfair Competition defines a trade secret as “any information . . . that is sufficiently valuable and secret to afford an actual or potential economic advantage over others.”¹¹⁹ Although this black-letter definition does not literally state that a trade secret must be kept secret from actual and potential competitors, doing so is what would create an economic advantage.¹²⁰ Comment *f.* recognizes this, stating that information generally known to or readily ascertainable by proper means by persons to whom it has potential economic value is not protectable.¹²¹ In sum, with the exception of the Restatement of Unfair Competition’s position that a plaintiff is not invariably required to demonstrate reasonable efforts to maintain secrecy,¹²² the Restatement of Unfair Competition’s definition, when read in conjunction with comment *f.*, approximates the Uniform Act’s definition.¹²³

The 2015 Restatement of Employment Law contains the following definition of an “employer’s trade secret”:

An employer’s information is a trade secret under this Chapter if:

- (a) it derives independent economic value from being kept secret;
- (b) the employer has taken reasonable measures to keep it secret; and
- (c) the information is not
 - (1) generally known to the public or in the employer’s industry;
 - (2) readily obtainable by others through proper means; or
 - (3) acquired by employees through their general experience, knowledge, training, or skills during the ordinary course of their employment.¹²⁴

Comment a. states:

119. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, at § 39.

120. *See id.*

121. *Id.* cmt. *f* at 431–32 (“[T]he requirement of secrecy is satisfied if it would be difficult or costly for others who could exploit the information to acquire it without resort to the wrongful conduct proscribed under § 40 Information that is generally known or readily ascertainable through proper means (see § 43) by others to whom it has potential economic value is not protectable as a trade secret.”).

122. *See* RESTATEMENT OF UNFAIR COMPETITION, *supra* note 66 and accompanying text.

123. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39 cmt. *b* at 427 (“The concept of a trade secret as defined in this Section is intended to be consistent with the definition of ‘trade secret’ in § 1(4) of the [Uniform] Act.”).

124. RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02.

The definition of "trade secret" in this Section is consistent with the definitions of trade secret used in the Uniform Trade Secrets Act (UTSA), the Restatement Third, Unfair Competition § 39, and the Economic Espionage Act, 18 U.S.C. § 1839.¹²⁵

A Reporters' Note to comment *a.* adds, "[t]his Section corresponds to these three definitions but explicitly adds the key point that employee knowledge gained from general training is not a trade secret."¹²⁶

The Restatement of Employment Law's definition tracks the Uniform Act's definition with reference to deriving "independent economic value from being kept secret" and taking "reasonable measures to keep it secret," and also by not protecting information that is "generally known" or "readily obtainable by proper means."¹²⁷ But in requiring that an employer's trade secret not be "generally known to the public," the Restatement of Employment Law's definition appears to reject both the Uniform Act's and the Restatement of Unfair Competition's focus upon what is generally known to and readily ascertainable by proper means by actual and potential competitors.¹²⁸ This would endorse the non-uniform amendments in six states, apparently requiring that a trade secret be not generally known to both the public and potential and actual competitors.¹²⁹ However, if Comment *a.* is taken at face value, this was not intended and "not generally known to the public" is not literally "not generally known to the general public." Consistency with the Uniform Act and the Restatement of Unfair Competition would be preserved by reading "not generally known to the public" as referring to "not generally known to the [economically relevant] public."¹³⁰ At the present time, this reading also would preserve consistency with the EEA. However, if it ultimately is determined that the EEA refers to the "general public,"¹³¹ this harmonizing interpretation of the Restatement of Employment Law would be inconsistent with the EEA.

Another issue raised by the Restatement of Employment Law's definition of "employer's trade secret" is the exclusion of information "acquired by employees through their general experience, knowledge, training or skills during the ordinary course of employment."¹³² Comment *e.* elaborates:

125. *Id.* cmt. *a.* at 406.

126. *Id.* Reporters' Notes to cmt. *a.* at 412.

127. *See* UNIFORM ACT, *supra* note 20 and accompanying text.

128. *See* UNIFORM ACT, *supra* notes 36, 38 and accompanying text.

129. *See supra* note 41 and accompanying text.

130. *See supra* note 113 and accompanying text (noting Judge Easterbrook's elaboration of what the reference to "the public" in the EEA could mean).

131. *See supra* notes 108–115 and accompanying text (noting the federal courts have not construed authoritatively the EEA's reference to "the public").

132. RESTATEMENT OF EMP. LAW, *supra* note 1, at § 8.02(c)(3).

An employee's general experience, knowledge, training and skills, including any increase in experience, knowledge, training and skills obtained in the ordinary course of employment, are not trade secrets within the meaning of this Section. Such non-trade-secret information, which normally includes knowledge about the habits and preferences of particular customers or other persons, may be used by a former employee as part of legitimate competition with a former employer. However, knowledge about the employer's special processes, the content of an employer's specially designed training program, or its specially developed "sales pitch materials," may qualify for trade-secret protection in appropriate circumstances.¹³³

This exclusion reflects the tension between trade secret protection and employee mobility.¹³⁴ This tension is greatest when an employer invokes the "inevitable disclosure doctrine,"¹³⁵ a theory of irreparable harm that can justify injunctive relief restraining an employee from working for a competitor.¹³⁶ A seminal case is *PepsiCo, Inc. v. Redmond*,¹³⁷ which was decided under the Illinois enactment of the Uniform Act.¹³⁸ The Illinois enactment follows the Uniform Act in authorizing injunctive relief against "threatened

133. *Id.* § 8.02 cmt. e at 409.

134. Edmund W. Kitch, *The Expansion of Trade Secret Protection and the Mobility of Management Employees: A New Problem for the Law*, 47 S.C. L. REV. 659, 664 (1996) ("[E]xpanded protection of trade secrecy creates tension . . . [with] the ability of ex-employees to use their skills and knowledge in new employment.").

135. See generally Elizabeth A. Rowe, *When Trade Secrets Become Shackles: Fairness and the Inevitable Disclosure Doctrine*, 7 TUL. J. TECH. & INTELL. PROP. 167, 182–83 (2005).

136. Christopher B. Seaman, *The Case Against Federalizing Trade Secrecy*, 101 VA. L. REV. 317, 366–67 (2015) ("[the] inevitable disclosure [doctrine] is not a separate cause of action"); Charles Tait Graves & James A. Diboise, *Do Strict Trade Secret and Non-Competition Laws Obstruct Innovation?*, 1 ENTREPRENEURIAL BUS. L.J. 323, 325–26, 337 (2007) ("The single biggest threat to innovation under trade secret law is the so-called 'inevitable disclosure' theory . . ."). Several other authors have attributed the innovations in Silicon Valley to California's aversion to restrictive employment covenants and the inevitable disclosure doctrine. See generally Margo E.K. Reder & Christine Neylon O'Brien, *Managing the Risk of Trade Secret Loss Due to Job Mobility in an Innovation Economy with the Theory of Inevitable Disclosure*, 12 J. HIGH TECH. L. 373, 440–43 (2012) ("California's Silicon Valley is now the leader in company formation, job creation, and as a source for exports, while Boston is a distant second.").

137. *PepsiCo, Inc. v. Redmond*, 54 F.3d. 1262, 1262 (7th Cir. 1995) (Illinois enactment).

138. *Id.* at 1267.

misappropriation” without reference to the inevitable disclosure doctrine.¹³⁹ The Seventh Circuit found the basis for invocation of the doctrine in prior Illinois common law.¹⁴⁰

The backdrop of *PepsiCo* was fierce beverage competition between PepsiCo and Quaker Oats.¹⁴¹ In 1994, Quaker Oats’ Gatorade and Snapple brands were nationally dominant, but PepsiCo had extensive plans to increase its national market share in 1995.¹⁴² In November 1994, William Redmond, Jr., the General Manager of PepsiCo’s California Business Unit, who had signed a confidentiality agreement, accepted an offer to become Chief Operating Officer of Quaker Oats’ combined Gatorade and Snapple operations.¹⁴³ Six days after Redmond announced his resignation, PepsiCo filed suit in Illinois federal district court to enjoin him from working for Quaker Oats.¹⁴⁴ On January 26, 1995, a federal district judge issued a preliminary injunction retroactive to December 15, 1994, restraining Redmond from assuming a position at Quaker Oats until June of 1995 and from ever disclosing or using PepsiCo trade secrets.¹⁴⁵

The trial court expressly observed that the defendants’ credibility with respect to Redmond’s duties at Quaker Oats had been undermined by Redmond’s initial false statements to PepsiCo executives denying that he had accepted Quaker Oats’ offer, Redmond’s false testimony and declaration about Quaker Oats’ business plan, and Redmond’s admission in his declaration that his job performance at Quaker Oats could be influenced by his knowledge of PepsiCo’s secrets.¹⁴⁶ In affirming, the Seventh Circuit panel emphasized:

The district court also concluded from the evidence that Uzzi’s actions in hiring Redmond and Redmond’s actions in pursuing and accepting his new job demonstrated a lack of candor on their

139. Compare 765 Ill. Comp. Stat. § 1065/3(a) (LexisNexis 2010) and (2014 Supp.), with UNIFORM ACT, *supra* note 7, § 2(a) & cmt.

140. *PepsiCo*, 54 F.3d at 1269 (“The . . . [Uniform Act] mostly codifies rather than modifies the common law doctrine that preceded it. Thus, we believe that *AMP* continues to reflect the proper standard under Illinois’s current statutory scheme.”).

141. *Id.* at 1263–64.

142. *Id.* at 1264.

143. *Id.*

144. *Id.* at 1265.

145. *Id.* at 1267.

146. *PepsiCo, Inc. v. Redmond*, No. 94 C 6838, 1996 WL 3965, at 7 (N.D. Ill. Jan. 2, 1996) (not officially reported) (Illinois enactment).

part and proof of their willingness to misuse PCNA trade secrets That conclusion was not an abuse of discretion.¹⁴⁷

Under the inevitable disclosure doctrine articulated in *PepsiCo*, a former employer can enjoin a former employee that has not signed a covenant not to compete from working for a competitor for a limited period of time.¹⁴⁸ Although a majority of states have recognized the inevitable disclosure doctrine in some form,¹⁴⁹ there have been impassioned rejections.¹⁵⁰ In *Whyte v. Schlage Lock Co.*, for example, a California intermediate appellate court explained:

The chief ill in the covenant not to compete imposed by the inevitable disclosure doctrine is its after-the-fact nature: The covenant is imposed *after* the employment contract is made and therefore alters the employment relationship without the employee's consent. When, as here, a confidentiality agreement is in place, the inevitable disclosure doctrine "in effect convert[s] the confidentiality agreement into such a covenant [not to compete]."¹⁵¹

The Restatement of Employment Law addresses the inevitable disclosure doctrine in § 8.05 dealing with competition between a former employee and a former employer.¹⁵² The general rule is that an enforceable non-competition agreement is necessary to enjoin a former employee from competing with a former employer.¹⁵³ However, a limited exception provides for injunctive relief if the former employee either has disclosed or used specifically identifiable trade secrets of the former employer or by words or conduct has

147. *PepsiCo*, 54 F.3d at 1270–71. The district judge subsequently made permanent the provisions of the preliminary injunction that had not expired. *PepsiCo*, *supra* note 146.

148. *See id.* at 1269.

149. *Whyte v. Schlage Lock Co.*, 101 Cal. App. 4th 1443, 1460 (4th Dist. 2002) (California enactment).

150. *Id.* at 1461.

151. *Id.* at 1462–1463; *accord* *Del Monte Fresh Produce Co. v. Dole Food Co.*, 148 F. Supp. 2d 1326, 1337 (S.D. Fla. 2001) (Florida enactment); *LeJeune v. Coin Acceptors, Inc.*, 381 Md. 288, 320–22 (2004) (Maryland enactment); *see also* *Motion Control Sys., Inc. v. East*, 262 Va. 33, 38 (2001) (Virginia enactment) (mere knowledge of trade secrets by former employee hired by a competitor did not justify an injunction against disclosure of the trade secrets); *see also* Shannon Aaron, Note & Comment, *Using the History of Noncompetition Agreements to Guide the Future of the Inevitable Disclosure Doctrine*, 17 LEWIS & CLARK L. REV. 1191, 1193 (2013) (arguing that the courts should be guided by the standards for the enforceability of covenants not to compete in applying the inevitable disclosure doctrine).

152. *See* RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.05.

153. *Id.* § 8.05(a) & cmt. b.

threatened to do so.¹⁵⁴ Comment *b.* discusses the “demanding showing” required to justify the exception:

(1) the former and current employers are direct competitors; (2) the employee’s new position is sufficiently similar to the old position so that (3) the employee could not fulfill the new responsibilities without using or disclosing the former employer’s trade secrets; and (4) the former employee has expressly threatened such use or disclosure, or the employee’s conduct demonstrates a pattern of deceit or misappropriation of trade secrets and other confidential information¹⁵⁵ indicating that ethical constraints and a court injunction barring the disclosure or use of trade secrets would, standing alone, be inadequate to protect the former employer’s legitimate interests. Any injunction should be for . . . no longer than necessary to prevent the new employer from gaining an unfair advantage against the former employer.¹⁵⁶

The Reporters’ Notes to § 8.05 state that, notwithstanding broader language in the opinion, due to the demonstrated untrustworthiness of Redmond, the *PepsiCo* appellate decision could have been restricted to the limited instances in which the Restatement of Employment Law permits an injunction against competition by a former employee with knowledge of trade secrets.¹⁵⁷ Moreover, Illustration 2 to § 8.05 involves E, a senior executive at X in charge of operations with broad access to trade secrets who had signed an enforceable confidentiality agreement but not a covenant not to compete.¹⁵⁸ “After seven years with X, E accepted a substantially similar senior executive position [with] Y, a competitor.”¹⁵⁹ E promptly notified X that E would be leaving for Y, and E’s employment agreement with Y states that Y does not want E to use or to disclose X’s trade secrets.¹⁶⁰ Under these circumstances, a court should not enjoin E from working for Y:¹⁶¹ “The mere

154. *Id.* § 8.05(b).

155. *Id.* § 8.02 cmt. a (The reference to “misappropriation . . . of other confidential information” should be disregarded. Comment *a.* to § 8.02 states that common-law trade secret misappropriation” does not protect confidential information not rising to the level of trade secret. An employer seeking to protect these interests must do so contractually, in accordance with §§ 8.06 and 8.07.”). *Id.* §§ 8.06, 8.07 (Sections 8.06 and 8.07 deal with the enforceability of restrictive employment covenants.).

156. *Id.* § 8.05 cmt. b.

157. *Id.* § 8.05.

158. RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.05 cmt. b, illus. 2.

159. *Id.* § 8.05 cmt. b, illus. 1.

160. *Id.*

161. *Id.* § 8.05 cmt. b, illus. 2.

fact that a high-level employee with access to confidential information¹⁶² accepts a substantially similar position at a competitor is insufficient to, in effect, impose a non-competition agreement not agreed to by the parties.”¹⁶³

In sum, in addition to its exclusion of information “acquired by employees through their general experience, knowledge, training, or skills during the ordinary course of employment” from the definition of an employer’s trade secret,¹⁶⁴ the Restatement of Employment Law restricts the inevitable disclosure doctrine as a justification for injunctive relief to instances in which there is an enforceable covenant not to compete and instances in which there is an enforceable covenant not to disclose trade secrets and either the conduct of the former employee, or the new employer, or both, demonstrates the likelihood that the former employee cannot be trusted to honor his or her enforceable contractual commitments.

Although the Restatement of Employment Law states that its approach is consistent with the Uniform Act,¹⁶⁵ the Restatement exception does not distinguish between the positive and negative trade secrets protectable under the Uniform Act.¹⁶⁶ Positive trade secrets involve information with respect to approaches that will produce the desired result; whereas negative trade secrets involve research dead ends and the like.¹⁶⁷ Negative trade secrets are more difficult to separate from an employee’s general skills and knowledge,¹⁶⁸ and have less social utility than positive trade secrets.¹⁶⁹ A former employee’s knowledge of negative trade secrets and failure to replicate them per se does not justify an injunction against competition.¹⁷⁰

The definitions in the Uniform Act, the EEA, and the Restatement of Unfair Competition do not address the distinction between trade secrets and

162. *Id.* § 8.05(b). The reference to confidential information should be limited to trade secrets. *See supra* note 155.

163. *Id.* § 8.05 cmt. b, illus. 2.

164. *See* RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02(c)(3).

165. *Id.* § 8.05 cmt. b.

166. *See id.* § 8.05(b).

167. Charles Tait Graves, *The Law of Negative Knowledge: A Critique*, 15 TEX. INTELL. PROP. L.J. 387, 388, 393 (2007).

168. *Id.* at 393, 413–14 (In rare cases, it is possible that a former employee’s revealing only what did not work would disclose what his former employer had discovered would work.). *But see* Metallurgical Indus. Inc. v. Fourtek, Inc., 790 F.2d 1195, 1203 (5th Cir. 1986) (“Knowing what not to do often leads automatically to knowing what to do.”).

169. Graves, *supra* note 167, at 388 (a former employer should not be able to sue a former employee who knew about the former employer’s errors and did not copy them).

170. *See id.* at 413.

employee general experience, and ordinary knowledge, training, and skills.¹⁷¹ But it is a recurrent issue. Employee mobility is at issue whenever a former employer asserts that a former employee has or will misappropriate trade secrets.¹⁷² *Bendinger v. Marshalltown Trowell Co.*,¹⁷³ for example, was an action under the Arkansas enactment of the Uniform Act to enjoin a former employee from working for a competitor.¹⁷⁴ The Arkansas Supreme Court affirmed the denial of relief.¹⁷⁵ At best, the former employee had minimal knowledge of his former employer's trade secrets and his new employer had forbidden other employees from consulting him about his prior employment.¹⁷⁶ The court added, "[O]ne who has worked in a particular field cannot be compelled to erase from his mind, all of the *general* skills, knowledge and expertise acquired through his experience."¹⁷⁷ If a former employer's action against a competitor that is hiring former employees is premised upon the former employees' misappropriation of trade secrets, employee mobility is also at stake.¹⁷⁸ In *Metro Traffic Control, Inc. v. Shadow Traffic Network*,¹⁷⁹ for example, Metro had contracted with radio stations to gather and to broadcast traffic information.¹⁸⁰ Metro's contract with station KFWB was not renewed.¹⁸¹ When the KFWB contract was awarded to Shadow Traffic Network, a competitor of Metro's, Metro sought a preliminary injunction restraining Shadow from soliciting and employing the Metro employees that had been assigned to KFWB.¹⁸² Metro claimed that Shadow intended to misappropriate trade secrets that Metro had acquired while performing the KFWB contract.¹⁸³ But a California intermediate appellate court affirmed the trial court's denial of a preliminary injunction under the California enactment of the Uniform Act.¹⁸⁴ The court held, "[t]he vague and generalized descrip-

171. See 18 U.S.C. § 1839(3)(B); UNIFORM ACT, *supra* note 7, § 1; RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 39.

172. See *Bendinger v. Marshalltown Trowell Co.*, 994 S.W.2d 468, 468, 470 (1999) (Arkansas enactment).

173. *Id.* at 468.

174. *Id.* at 469.

175. *Id.* at 475.

176. *Id.* at 474.

177. *Id.* at 475.

178. See *Metro Traffic Control, Inc. v. Shadow Traffic Network*, 22 Cal. App. 4th 853, 853–55 (2d Dist. 1994) (California enactment).

179. *Id.*

180. *Id.* at 853–55.

181. *Id.* at 856.

182. *Id.* at 853–56.

183. *Id.* at 858.

184. *Metro*, 22 Cal. App. 4th at 853–55.

tion of Metro's 'trade secrets' is nothing more than a 'job classification' for radio traffic announcers. It fails to describe any body of information independent of the ability of its employees to satisfy KFWB's requirements."¹⁸⁵

Comment d. to Restatement of Unfair Competition § 42 deals with breach of confidence by employees. It contains an extensive discussion of the importance of distinguishing employees' general skill, knowledge, training, and experience from an employer's trade secrets in order to maintain a reasonable balance between the protection of information and employee mobility.¹⁸⁶ A preliminary version of the EEA similarly provided, "[t]he term [proprietary economic information]¹⁸⁷ does not include any knowledge, experience, training, or skill that a person lawfully has acquired due to his work as an employee of or as an independent contractor for any person."¹⁸⁸ Although this provision does not appear in the enacted EEA, the EEA's legislative sponsors placed a Managers' Statement in the Congressional Record stating that the deletion was not intended to subject employee general knowledge, experience, and skill to criminal liability.¹⁸⁹

In addition to its definition of employer's trade secret and its limitation of the inevitable disclosure doctrine, the Restatement of Employment Law proposes a new theory for protection of an employer's trade secrets. The Restatement states that employees breach their duty of loyalty to their employer by unauthorized disclosure or use of the employer's trade secrets even after the employment relationship has terminated.¹⁹⁰ This approach has been described as both unnecessary in view of existing remedies for trade secret misappropriation and without case support.¹⁹¹ Indeed, the Restatement of

185. *Id.* at 862–63.

186. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 42 cmt. d.

187. S. REP. NO. 104-359, at 2 (1996).

188. *Id.*

189. 142 Cong. Rec. at S12213 (1996) (Statement of the Managers of the Economic Espionage Bill) ("A prosecution that attempts to tie skill and experience to a particular trade secret should not succeed unless it can show that the particular material was stolen or misappropriated. Thus, the government cannot prosecute an individual for taking advantage of the general knowledge and skills or experience that he or she obtains or comes by during his tenure with a company."); *see also* Pooley et al., *Understanding the EEA*, *supra* note 105, at 189–90. ("[There are] repeated statements in the legislative history indicating that former employees should not be punished under the EEA merely for taking with them the general skill, knowledge, and industry experience they have acquired on the job.").

190. RESTATEMENT OF EMP. LAW, *supra* note 1, §§ 8.01(b)(1), 8.03(a), (c).

191. Michael Selmi, *Trending and the Restatement of Employment Law's Provisions on Employee Mobility*, 100 CORNELL L. REV. 1369, 1373 (2015) ("There is, after all, a separate cause of action for misappropriation of trade secrets, and there is no logical reason to create an additional cause of action grounded in the

Employment Law acknowledges that its expansion of the duty of loyalty could be important only in jurisdictions that have not enacted the Official Text of the Uniform Act, which preempts duplicative tort and equitable theories of relief.¹⁹²

What the Restatement of Employment Law adds to the treatment of employee mobility issues is the suggestion that a plaintiff former employer should have the affirmative burden of showing that its trade secret claims do not unnecessarily restrict its former employees' exercise of their general experience and ordinary knowledge, training, and skills. In states in which this allocation of the burden of proof to a former employer has not been made, the Restatement of Employment Law should influence its adoption.

Allocation of this burden of proof to a former employer is consistent with the Uniform Act. A former employer that asserts rights in information against a former employee must prove the existence of the rights.¹⁹³

duty of loyalty I am not aware of any case, or more importantly any body of case law that seeks to protect trade secrets through the duty-of-loyalty cause of action."). The Restatement of Unfair Competition emphasized existing employees' duty of loyalty with respect to trade secrets. RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 42 cmt. b at 480 ("The rules governing liability for the appropriation of trade secrets play a more central role in regulating the behavior of employees after the termination of the employment relationship.").

192. RESTATEMENT OF EMP. LAW, *supra* note 1, § 8.02 cmt. a at 424 ("In a jurisdiction that has not adopted the UTSA with its rule of preemption, employers injured by a violation of the employee's duty of loyalty stated in this Section would have an action for appropriate relief"). The *Restatement of Employment Law's* proposed expansion of the employee duty of loyalty to include trade secret misappropriation is preempted by the Uniform Act. See UNIFORM ACT, *supra* note 7, § 7(a). See Dole, *supra* note 15, at 106–07. Accordingly, the principal jurisdictions that could consider following the Restatement of Employment law are Massachusetts, North Carolina, and New York, which have not adopted the Uniform Act, refer to the authority in *supra* note 10, and Iowa, Nebraska, and New Mexico, which failed to enact the Uniform Act preemption provision. See Dole, *supra* note 15, at 99. Because the definition of trade secret was not altered by the 1985 Official Amendments to the Uniform Act and the Restatement of Employment Law definition of trade secret approximates that of the Uniform Act, the 1985 Official Amendments to the Uniform Act preemption provision and the split of judicial authority with respect to the scope of Uniform Act preemption will not increase the number of states in which the Restatement's proposed expansion of the duty of loyalty is not preempted. See generally Dole, *supra* note 15.

193. See Lemley, *IP Rights*, *supra* note 25, at 342 ("The UTSA . . . defines the legal rights of trade secret owners by requiring the existence of a secret and defining what constitutes a secret. Doing so prevents plaintiffs from ignoring or glossing over proof of the existence of a trade secret in their effort to prevent what they see as improper use of their information."); see also RESTATEMENT OF UNFAIR COMPETITION, *supra* note 1, § 42, cmt. d at 481 ("An employer who is asserting rights in information against a former employee bears the burden of proving the

VI. THE NAFTA AGREEMENT, THE TRIPS AGREEMENT, AND THE PROPOSED EUROPEAN UNION DIRECTIVE

Article 1711(1) of the NAFTA Agreement commits the United States, Canada, and Mexico to:

provide the legal means for any persons to prevent trade secrets from being disclosed to, acquired by, or used by others without the consent of the person lawfully in control of the information in a manner contrary to honest commercial practices, in so far as:

- (a) the information is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons that normally deal with the kind of information in question;
- (b) the information has actual or potential commercial value because it is secret; and
- (c) the person lawfully in control of the information has taken reasonable steps under the circumstances to keep it secret.¹⁹⁴

With an important exception, this definition is virtually identical to the Uniform Act definition.¹⁹⁵

The NAFTA Agreement restricts the generally known and readily accessible by proper means limitations upon the protection of information to general knowledge of and ready access to the entirety of the secret information either as a body or in its precise configuration and assembly. There is sufficient secrecy “if only the assembly of the components of the information is secret.”¹⁹⁶ This artificial restriction upon the generally known and readily

existence and ownership of a trade secret.”). To the extent that a plaintiff former employer does not prove objectively that specific information is a trade secret (refer to *supra* notes 25–26 and accompanying text), the information can be regarded to be an aspect of the former employee’s general experience or ordinary knowledge, training and skills. See Charles Tait Graves, *Trade Secrets as Property: Theory and Consequences*, 15 J. INTELL. PROP. L. 39, 53 (2007) (“[E]verything the employee [sic.] cannot prove to be secret may well be deemed general skills, knowledge, and experience.”).

194. NAFTA Agreement, art. 1711, *supra* note 2.

195. POOLEY, TRADE SECRETS, *supra* note 35, § 15.02 (“Trade secrets are defined under NAFTA in terms virtually identical to the Uniform Trade Secrets Act . . .”).

196. See Mira Burri & Ingo Meitinger, *The Protection of Undisclosed Information: Commentary of Article 39 TRIPS*, at 2, SOCIAL SCIENCE RESEARCH NETWORK (May 20, 2014), <http://ssrn.com/abstract=2439180> [hereinafter Burri & Meitinger] (commentary on identical language in the TRIPs Agreement).

accessible by proper means limitations¹⁹⁷ may have been intended to protect database owners.¹⁹⁸

Annex 1C of the General Agreement on Tariffs and Trade (the GATT Agreement) of April 15, 1994 that established the World Trade Organization, is captioned Trade-Related Aspects of Intellectual Property Law and known as the TRIPs Agreement.¹⁹⁹ Unlike the NAFTA Agreement, the TRIPs Agreement refers to trade secrets as “undisclosed information.”²⁰⁰ Article 39 of the TRIPs Agreement provides in relevant part:

SECTION 7: PROTECTION OF UNDISCLOSED
INFORMATION

Article 39

1. In the course of ensuring effective protection against unfair competition as provided in Article 10*bis* of the Paris Convention (1967), Members shall protect undisclosed information in accordance with paragraph 2
2. Natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information:
 - (a) Is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;

197. See, e.g., *Wright Med. Tech., Inc. v. Grisoni*, 135 S.W.3d 561, 591–94 (Tenn. App. 2002) (affirming the dissolution of a temporary injunction prohibiting the manufacture and marketing of a medical device by a former employee where a “majority” of the information sought to be protected was publically available); *Lake Treasure Holdings, Ltd v. Foundry Hill GP LLC*, 39 DEL. J. CORP. L. 939, 962 (2015) (unreported case) (“The defendants’ expert explained convincingly at trial that the Chess Champions primarily comprised components taken from the public domain. He further explained that the arrangements of the public elements in the Chess Champions were elementary, even simplistic, and that similar arrangements are widely discussed in publically available literature and on the internet.”).

198. See Burri & Meitinger, *supra* note 196, at 2 (In discussing this language in the TRIPs Agreement, the authors commented: “This means, for example, that secret databases are also protected under art. 39, even when they encompass entries earlier disclosed.”). Databases have limited protection under American trade secret law. See generally Sharon K. Sandeen, *A Contract by Any Other Name Is Still a Contract: Examining the Effectiveness of Trade Secret Clauses to Protect Databases*, 45 IDEA 119 (2005).

199. POOLEY, TRADE SECRETS, *supra* note 35, § 15.02.

200. TRIPs Agreement, art. 39, *supra* note 3, ¶¶ 1, 2.

- (b) has commercial value because it is secret; and
- (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.²⁰¹

Like Article 1711(1) of the NAFTA Agreement, Article 39 of the TRIPs Agreement was influenced by the Uniform Act definition of trade secret.²⁰² But, whereas Article 1711(1) of the NAFTA Agreement refers to information with “actual or potential” value. Article 39(2)(b) refers only to information with “value.” Unlike the NAFTA Agreement, the TRIPs Agreement does not clearly obligate its signatories to protect potentially-valuable information involving yet-to-be commercialized trade secrets.²⁰³ Also, the TRIPs Agreement, like the NAFTA Agreement,²⁰⁴ artificially restricts the “generally known” and “readily accessible by proper means” limitations upon protection to general knowledge of and ready access to the entirety of information and its precise configuration and assembly.²⁰⁵

A European Union Directive is an act of the European Parliament and Council requiring Member States to incorporate the Directive’s mandatory provisions into domestic law by a deadline,²⁰⁶ which, in the case of the proposed Trade Secrets Directive, is twenty-four months after its adoption.²⁰⁷ The proposed Directive, which is captioned a Directive on “protection of undisclosed know-how and business information (trade secrets),” contains the following definition of “trade secret”:

[I]nformation which meets all of the following requirements:

201. *Id.*

202. Sharon K. Sandeen, *The Limits of Trade Secret Law: Article 39 of the TRIPS Agreement and the Uniform Trade Secrets Act On Which It Is Based*, in *TRADE SECRETS AND UNDISCLOSED INFORMATION* 797 at 815 (Sharon K. Sandeen & Elizabeth A. Rowe eds., 2014) (“The secrecy limitation of trade secret law is built into the TRIPs Agreement by virtue of Article 39(2) which adopted, nearly verbatim, the UTSA’s definition of a trade secret However, Article 39 includes a restriction on the application of the generally known and readily accessible limitations that is not in the text of the UTSA. Specifically such limitations apply only to information that is available ‘as a body or in the precise configuration and assembly of its components.’”).

203. POOLEY, *TRADE SECRETS*, *supra* note 35, § 15.02. James Pooley added that: “[I]t would significantly diminish the minimum level of protection required by the treaty if the wording of this section were to be interpreted too narrowly.” *Id.*

204. *See supra* note 194 and accompanying text.

205. *See supra* notes 194–198, 201 and accompanying text.

206. Jacqueline D. Lipton, *Wikipedia and the European Union Database Directive*, 26 *SANTA CLARA COMPUTER & HIGH TECH. L.J.* 631, 636 (2010).

207. *Proposed EU Directive*, *supra* note 4, art. 18.

- (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within circles that normally deal with the kind of information in question;
- (b) has commercial value because it is secret;
- (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.²⁰⁸

This definition follows the definition of “undisclosed information” in the TRIPs Agreement²⁰⁹ and contains the same weaknesses. Protection is not clearly extended to information with potential value that otherwise satisfies the requirements and the existence of general knowledge of and ready access by proper means to information is restricted artificially.²¹⁰

The NAFTA Agreement, the TRIPs Agreement, and the proposed European Union Directive are important international developments that have and will increase national protection of trade secrets.²¹¹ But their definitions of trade secret are too imprecise to influence change in prevailing American conceptions. The proposed Trans-Pacific Partnership Agreement also will include intellectual property coverage.²¹² It is doubtful, however, that its treatment of trade secrets will be more precise.

208. *Id.* art. 2(1).

209. *See id.* at Explanatory Memorandum.

210. *Compare Proposed EU Directive, supra* note 4 and text accompanying footnote 208, *with supra* notes 200–205 and accompanying text.

211. Mexico, for example, amended its laws prior to the finalization of the NAFTA Agreement. POOLEY, TRADE SECRETS, *supra* note 35, § 15.02. But, although the TRIPs Agreement requires procedural protection of intellectual property rights and judicial authority to impose sanctions, the TRIPs Agreement does not require vigorous enforcement or the imposition of meaningful sanctions. Rachel Brewster, *The Surprising Benefits to Developing Countries of Linking International Trade and Intellectual Property*, 12 CHI. J. INT’L L. 1, 34–35 (2011). *But see* Rochelle Cooper Dreyfuss, *Trade Secrets: How Well Should We Be Allowed to Hide Them? The Economic Espionage Act of 1996*, 9 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1, 26–29 (1998) (Although the EEA can be violated by certain conduct occurring outside the U.S., it could violate the TRIPs Agreement to apply the EEA to conduct in a developing nation given a transition period to comply with the agreement.).

212. Ruth L. Okediji, *Legal Innovation in International Intellectual Property Relations: Revisiting Twenty-One Years of the Trips Agreement*, 36 U. PA. J. INT’L L. 191, 257–59 (2014).

VII. CONCLUSION

Except in Nebraska,²¹³ non-uniform amendments have not seriously impaired the Uniform Act's definition of trade secret.²¹⁴ The Economic Espionage Act, the NAFTA Agreement, the TRIPs Agreement, and the proposed European Union Directive offer no suggestions for improvement.²¹⁵ Although the Restatement of Unfair Competition suggests that referring to "independent" economic value is unnecessary,²¹⁶ the reference does not appear to have caused problems. Finally, the Restatement of Employment Law suggests that the courts in every state, including states that have enacted the Uniform Act, should require a former employer charging a former employee with misappropriation of trade secrets to prove that the relief sought does not unnecessarily restrict the employee's exercise of his or her general experience and ordinary knowledge, training, and skills,²¹⁷ a burden that should include proof that any threatened misappropriation involves positive rather than merely negative trade secrets.²¹⁸

213. See *supra* notes 46–49 and accompanying text.

214. See *supra* notes 41–45, 50–62, 74–78 and accompanying text.

215. Refer to *supra* notes 82–118, 194–212 and accompanying text.

216. Refer to *supra* note 119 and accompanying text. Colorado and Illinois non-uniform amendments deleted "independent." COLO. REV. STAT. § 7-74-102(4) (2013); ILL. COMP. STAT. ANN. 1065 / 2(d)(1) (LexisNexis 2010) & (2014 Supp.).

217. Refer to the text following *supra* note 192. This allocation of the burden of proof to a plaintiff employer is consistent with the Uniform Act. Refer to *supra* note 193 and accompanying text.

218. Refer to *supra* notes 165–170 and accompanying text.

